PRES

# REPORT

ON THE

# PROGRESS OF VACCINATION

IN

## The Madras Presidency,

BY

## THE MEDICAL BOARD

TOGETHER WITH

## THE ANNUAL RETURN OF VACCINATION

FOR

*THE YEAR* 1852.

---

Published by Authority.

---

ROYAL COLLEGE OF SURGEONS OF ENGLAND LIBRARY

MADRAS:
PRINTED AT THE FORT SAINT GEORGE GAZETTE PRESS.
1853.

# REPORT

ON

# The Progress of Vaccination

DURING

THE YEAR 1852.

No. 116.

*To*

*The Chief Secretary to Government.*

SIR,

I have the honor under instructions from the Medical Board to forward the accompanying Annual Return of Vaccination throughout the Presidency for the year 1852, for submission to the Right Honorable the Governor in Council, and eventual transmission to the Honorable the Court of Directors, and to record the following observations thereon for the information of Government.

2. During the year the attention of the Board has been constantly given to the working of the corps of vaccinators in the several districts and collectorates, and frequent communications have been made to Superintending Surgeons with the view of keeping up and increasing the attention and zeal of the local superintendents, and exciting each vaccinator to a faithful and zealous discharge of duty, and they have not been altogether disappointed. Instances however of indolence, inattention and neglect of duty have not been unfrequent, and two or three cases of false returns have been detected—all such were promptly punished by summary dismissal from the service, or fine by the local authorities—altogether the reports of the several superintendents shew a very great improvement in the establishment as compared with former years, but the Board are of opinion, that no diminution of labour or vigilant supervision should occur in a matter of such very great importance to the entire population, but that further exertions and stimulants to exertion are still necessary.

3. It will be observed that the total number operated upon by the regular establishment of vaccinators during the year has been 2,93,885, being an increase of not less than 50,887 above the operations of 1851, and 1,34,861 over those of 1847, the year preceding the change in the system of superintendence to that now in use; so that it will at once be admitted, that satisfactory as the returns of 1851 were, those for the past year are still more favorable.

4. In addition to these operations by the regular establishment, 42,743 individuals have been duly vaccinated by the volunteers lately entertained, during about six or eight months of the year; 13,679 by subordinates, and 2,970 at Secunderabad and Jaulnah; in all making a grand total of 3,53,277 vaccinated during the year as per margin, and shewing an increase over the preceding year of 98,301.

| | | |
|---|---|---|
| Vaccination | by regular establishment.......... | 2,93,885 |
| ,, | by class of volunteers............. | 42,743 |
| ,, | by subordinates .................... | 13,679 |
| ,, | at Secunderabad and Jaulnah...... | 2,970 |
| | | 3,53,277 |
| | Total in 1851.. | 2,54,976 |
| | Increase in 1852.. | 98,301 |

5. The average number of operations performed by each vaccinator of the regular establishment has been 1,277; (153 above average of the preceding year) this number has been considerably exceeded by the vaccinators in the districts or collectorates marginally noted, while on the other hand those who have fallen much short of the average number are also exhibited, and thus readily contrasted.

| No. by each Vaccinator. | | | No. by each Vaccinator. | | |
|---|---|---|---|---|---|
| 1 | Nellore | 2,686 | 1 | Kurnool | 512 |
| 2 | Masulipatam | 2,303 | 2 | Chicacole | 534 |
| 3 | Honore | 2,090 | 3 | Bellary | 750 |
| 4 | Ingeram | 2,051 | 4 | Salem | 823 |
| 5 | Rajahmundry | 2,012 | 5 | Cuddalore | 884 |
| 6 | Combaconum | 1,839 | | | |
| 7 | Madura | 1,838 | | | |
| 8 | Mangalore | 1,745 | | | |
| 9 | Chingleput | 1,588 | | | |
| 10 | Cuddapah | 1,538 | | | |
| 11 | Ganjam | 1,519 | | | |
| 12 | Ramnad | 1,501 | | | |

6. Extracts from several reports by superintendents bearing upon the operations of the past year are appended; and I am instructed respectfully to solicit the attention of Government to the subject of volunteers now employed. They have been engaged in the public service more or less throughout the twelve-months in the several collectorates where an increase of the vaccine establishment was required; they have as a body been very zealous and attentive, indeed some of them, especially in the Cuddapah district and Northern Division, have even surpassed the regular vaccinators in extent of operations; their labour up to this period has been quite gratuitous, and had they been on the receipt of pay, they might have been enabled to move about the districts, and the amount of vaccinations performed would in all probability have been much greater than now shewn. It is to be regretted that some have already left disheartened at not receiving pay, and most of those now remaining are with difficulty retained in the hope of being ere long duly entered on the establishment.

7. The Board respectfully solicit that Government may be pleased to allow these men pay at the rate of seven Rupees per mensem from 1st July 1852, prior to which they had all completed their probationary course, and were reported duly qualified for the appointment of vaccinators. In the Cuddapah

report Dr. Peterkin remarks that volunteer Goomdooreddy vaccinated 3,602 in the course of the year, and in that of Vizagapatam, Assistant Surgeon Blackwell records that Chendriah (volunteer vaccinator) in the course of 6 months (from July to December) performed 1543 successful operations—the Board therefore recommend that these two individuals may be promoted—as special cases—to the grade of 1st class vaccinators from the 1st instant on account of zeal and amount of duty performed. Such rewards the Board consider not only to be merited by the individuals, but would act beneficially as a stimulus to exertion on the whole department.

8. The Board are glad to observe from Extract Minutes of Consultation quoted marginally that the Government of India have sanctioned the increase of vaccinators according to the scale given in their application under date 26th November 1851. The returns of population then available in this office gave a total exclusive of Travancore and Cochin of 16,001,311. The returns as per recent census published in the Fort St. George Gazette by the Board of Revenue, give 22,301,697 as the total population of the same zillahs or collectorates and districts; an increase of 6,300,386, six millions, three hundred thousand and upwards. This augmentation requires to be provided for, and I am instructed by the Board to append the accompanying tabular view of the statement given in their letter No. 317 of date 26th November 1851, and a scale which in their opinion is now called for and adapted to the population as by recent census. No. 516, dated 1st Instant.

Statement shewing a revised arrangement and proposed extension of the Corps of Vaccinators.

| Divisions. | Stations. | As per Statement submitted in the 14th and 21st paras. of the Medical Board's Report No. 317 dated 26th November 1851. Population. | Extent of country in square miles. | No. of vaccinators which the population and extent of country would require. At 70,000 inhabitants to each vaccinator. | At 620¾ square miles to each vaccinator. | Mean No. of vaccinators required. | Distribution of vaccinators. 1st Class | 2d " | 3d " | Total. | Proposed revised scale according to the recent census. As per statement published by the Board of Revenue. Population. | Extent of country in square miles. | No. of vaccinators which the population and extent of country would require. At 70,000 inhabitants to each vaccinator. | At 429 square miles to each vaccinator. | Mean No. of vaccinators required. | Distribution of vaccinators. 1st Class | 2d " | 3d " | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Presidency .. | Madras | 500,000 | 26 | 7 | 0 | 3½ | 2 | 4 | 2 | 8 | 720,000 | 27 | 10 | 0 | 5 | 2 | 4 | 3 | 9 |
| Centre | Chingleput, Poonamallee | 410,505 | 3,020 | 6 | 5 | 5½ | 1 | 3 | 2 | 6 | 583,462 | 2,993 | 8 | 7 | 7½ | 2 | 3 | 2 | 7 |
| Centre | North Arcot, Chittoor, Vellore | 634,781 | 5,571 | 9 | 9 | 9 | 2 | 4 | 3 | 9 | 1,485,873 | 5,790 | 21 | 14 | 17½ | 4 | 8 | 5 | 17 |
| Centre | South Arcot, Verdachellum, Cuddalore | 873,025 | 8,049 | 13 | 13 | 13 | 3 | 6 | 4 | 13 | 1,006,005 | 7,600 | 14 | 18 | 16 | 4 | 7 | 5 | 16 |
| Centre | Guntoor | 411,519 | 3,500 | 6 | 6 | 6 | 1 | 3 | 2 | 6 | 570,083 | 4,960 | 8 | 12 | 10 | 2 | 5 | 3 | 10 |
| Centre | Nellore, Ongole | 421,822 | 12,000 | 6 | 19 | 12½ | 3 | 4 | 4 | 11 | 935,690 | 7,930 | 13 | 18 | 15½ | 4 | 7 | 4 | 15 |
| Northern | Masulipatam | 519,125 | 4,820 | 7 | 8 | 7½ | 2 | 3 | 2 | 7 | 520,866 | 5,000 | 8 | 12 | 10 | 2 | 5 | 3 | 10 |
| Northern | Rajahmundry, Ingeram | 887,260 | 6,050 | 13 | 10 | 11½ | 3 | 6 | 5 | 14 | 1,012,036 | 6,050 | 15 | 14 | 14½ | 3 | 6 | 5 | 14 |
| Northern | Vizagapatam | 1,047,414 | 15,300 | 15 | 25 | 20 | 4 | 7 | 6 | 17 | 1,254,272 | 7,650 | 18 | 18 | 18 | 4 | 8 | 6 | 18 |
| Northern | Ganjam, Chicacole | 588,079 | 6,400 | 8 | 10 | 9 | 2 | 4 | 3 | 9 | 926,930 | 6,400 | 13 | 15 | 14 | 3 | 6 | 5 | 14 |
| Southern | Trichinopoly | 639,689 | 3,000 | 9 | 5 | 7 | 2 | 3 | 2 | 7 | 709,196 | 3,243 | 10 | 8 | 9 | 2 | 4 | 3 | 9 |
| Southern | Madura, Dindigul, Ramnad | 570,340 | 10,700 | 8 | 17 | 12½ | 3 | 5 | 4 | 12 | 1,756,791 | 10,700 | 25 | 25 | 25 | 6 | 11 | 8 | 25 |
| Southern | Tinnevelly | 850,891 | 5,700 | 12 | 9 | 10½ | 2 | 5 | 3 | 10 | 1,269,216 | 5,700 | 18 | 13 | 15½ | 4 | 7 | 4 | 15 |
| Southern | Coimbatore | 821,986 | 8,230 | 12 | 13 | 12½ | 3 | 5 | 4 | 12 | 1,153,862 | 8,280 | 17 | 19 | 18 | 4 | 8 | 6 | 18 |
| Southern | Salem | 942,038 | 8,200 | 13 | 13 | 13 | 3 | 6 | 4 | 13 | 1,195,377 | 8,200 | 17 | 19 | 18 | 4 | 8 | 6 | 18 |
| Southern | Tanjore, Combaconum, Tranquebar | 972,902 | 3,900 | 14 | 6 | 10 | 3 | 5 | 4 | 12 | 1,676,086 | 3,900 | 24 | 9 | 16½ | 4 | 7 | 5 | 16 |
| Ceded Districts | Bellary | 1,126,703 | 12,980 | 16 | 21 | 18½ | 4 | 7 | 5 | 16 | 1,229,599 | 13,056 | 18 | 30 | 24 | 5 | 11 | 8 | 24 |
| Ceded Districts | Cuddapah | 1,228,546 | 12,970 | 18 | 21 | 19½ | 4 | 8 | 6 | 18 | 1,451,921 | 12,970 | 21 | 30 | 25½ | 6 | 11 | 8 | 25 |
| Ceded Districts | Kurnool | 241,632 | 1,056 | 3 | 2 | 2½ | 0 | 3 | 0 | 3 | 273,190 | 2,643 | 4 | 6 | 5 | 1 | 2 | 2 | 5 |
| Malabar & Canara | Cannanore, Tellicherry, Calicut, Angaddipooram | 1,318,398 | 6,060 | 19 | 10 | 14½ | 4 | 8 | 6 | 18 | 1,514,909 | 6,060 | 22 | 14 | 18 | 4 | 8 | 6 | 18 |
| Malabar & Canara | Mangalore, Honore | 994,656 | 7,720 | 14 | 12 | 13 | 3 | 6 | 4 | 13 | 1,056,333 | 7,720 | 15 | 18 | 16½ | 4 | 7 | 5 | 16 |
| | Total.. | 16,001,311 | 145,302 | 228 | 234 | 231 | 54 | 105 | 75 | 234 | 22,301,697 | 136,872 | 319 | 319 | 319 | 74 | 143 | 102 | 319 |

9. The Board are still of opinion that 70,000 of the population is an ample charge for one vaccinator—and as the more recent and correct census shews so great an additional amount of population (upwards of six millions), a proportionate number of vaccinators appears requisite. The whole population 22,301,697 divided by 70,000 gives 319 as the number of vaccinators required, and the extent of country 136,872 square miles divided amongst this number (319) would give 429 square miles to each.

10. The density of the population varies very considerably in the several collectorates, and therefore the number of vaccinators that would be requisite from each of these data, "extent of population" and "extent of country" differs proportionably; thus in North Arcot the number required calculated on the population is 21, and on the extent of country, 14; in South Arcot 14 and 18; Bellary 18 and 30, and Cuddapah 21 and 30 respectively—in such instances the mean of the two numbers has been taken.

11. The total expense of the entire establishment would be as follows:

Establishment of Vaccinators.

| 1st Class. | | 2d Class. | | 3d Class. | | Total. | |
|---|---|---|---|---|---|---|---|
| No. | Pay per annum. | No. | Pay per annum. | No. | Pay per annum. | No. | Pay per annum. |
| 74 | 12,432 | 143 | 18,018 | 102 | 8,568 | 319 | 39,018 |

12. The time will doubtless come when education shall remove native prejudice, and cause European medical practice not only to be received but hailed with favour by the entire population; then, means of a very different nature will be available as in other civilized countries for the due spread and keeping up of vaccination, but under existing circumstances the means now in use and extended as here proposed, appear to the Board well suited to diffuse vaccination duly over the country.

13. The extent of population returned by the last census, and shewn in the above tabular view, viz. 22,301,697, would give annually, at the rate of three births for every hundred, an increase of 6,69,050; the total vaccinated last year, exclusive of the operations at Jaulnah and Secunderabad, has been 3,50,307; of this number it may be remarked that a very large proportion, nearly one half, were five years of age and upwards, so that of the total births in the year, it may be affirmed that little more than one fourth were reached—and this shews the urgent necessity for an increase of the establishment.

14. Small pox has been reported to have existed in an epidemic form in Malabar and Canara, in some parts of the Cuddapah Collectorate, and also in certain parts of the Northern Circars, but with the exception of Malabar, the

disease was neither very extensive nor fatal in the other places named. In the Zillah of Calicut and Mangalore, but especially the former, the out-break was great in extent and virulence—out of 7,166 seizures recorded to have taken place in the Malabar district, no fewer than 3,502 died, or 49 per cent.

15. In this part of the country, Malabar, where of all others the greatest attention to vaccination is requisite (on account of the great tendency to degeneration of the vaccine virus from dampness of climate), Government are aware that the grossest dereliction of duty on the part of the vaccinators was found to exist; and it is to be hoped that the measures recently adopted may secure the inhabitants from future similar out-breaks. The body of vaccinators, the subordinates and medical officers generally in these provinces have been busily employed in diffusing vaccination; and from the reports received, it is gratifying to observe that the lymph in use for the last 18 months, has been in every respect genuine, except in the district of Malabar—at Calicut.

16. On this point (the activity and genuineness of the vaccine virus now in use throughout the Presidency) it would appear in almost every district to be unexceptionable in quality—the failures as hitherto are noted to be greatest in Malabar and Canara, Ceded Districts and in the Northern Division—the average in the whole during the year has been 71 per thousand.

17. As a general fact it may be admitted that great moisture long continued, and excessive heat, act prejudicially upon vaccination (the virtue of the lymph would appear to be modified thereby) for upon the whole the failures are greatest in very moist climates, and during the hottest periods of the year in others, exceptions however in both respects are observed—vide tables in Appendix. Carelessness on the part of parents is noted frequently by medical officers as a cause of failure, and wilful interference in many others has been brought to notice where the virus has been actually rubbed off and washed thoroughly out of the wounds; while again in the very hot and wet months of the year, it is easy to conceive as a cause of individual failures that the lymph may be deprived of its virtues by exposure in the sun or in the rain ere it can be absorbed into the system. The general ratio of failures in the Presidency, Centre, Southern, and Mysore Divisions are considered a fair average, and rather within the usual rates observed in Europe; a concise table is given marginally.

| Years | Ratio of failures per 1000. | | | | | | | Total average ratio per 1000. |
|---|---|---|---|---|---|---|---|---|
| | Presidency | Centre | Northern | Southern | Malabar & Canara | Mysore | Ceded Districts | |
| 1847 | 38·8 | 55·3 | 112·9 | 62·1 | 125·1 | 53·2 | 103·4 | 72· |
| 1848 | 40·1 | 50·3 | 101·2 | 53·4 | 184·3 | 42·0 | 105·7 | 77· |
| 1849 | 40·7 | 57·4 | 85·3 | 50·8 | 176·5 | 57·0 | 89·3 | 77· |
| 1850 | 32·8 | 68·3 | 90·0 | 45·3 | 150·0 | 49·6 | 57·8 | 69· |
| 1851 | 49·1 | 70·8 | 78·9 | 47·8 | 120·1 | 45·2 | 106·2 | 67· |
| 1852 | 60·3 | 53·4 | 99·5 | 57·8 | 106·1 | 43·3 | 114·3 | 71· |

18. With regard to the supply of lymph from England received during the course of the year under review, the Board regret to have to record that with the exception of three or four instances, the glasses, ivory points, and crusts, proved to be wholly inert; the successful cases however fortunately occurred in the Northern Division, and in Malabar and Canara, where a renewal of the lymph was reported to be most required, and so far it has been of use. The cause of failure in the first supplies was evidently bad package, as reported to Government at the time of receipt; the latter packets were well secured in every respect, but the results were unfortunately not attended with success. The Board respectfully solicit another supply of one thousand charges in *glass tubing hermetically sealed*, for the purpose of being distributed to the Northern Division, Malabar and Canara, Ceded Districts, and also for transmission to Kamptee and Saugor, where difficulty is often experienced in obtaining supplies of lymph. The Board would wish this supply to be sent out by the Mail which leaves England in the early part of October; it would thereby reach this country at a most favourable season of the year.

19. As bearing upon the nature of the lymph now in use over the greater part of this Presidency as already said, it is looked upon as good and genuine, with the exception of certain parts in Malabar, and the experience of the Native Army shews this to be the fact—this large body of men continue, and have been for years past almost entirely free from small pox; and yet they are often much exposed to the disease. Yet as there is a tendency to degeneration of the lymph on the Malabar Coast and in other places, Mercara and Coorg, and probably also in certain parts of the Northern Division, the Board would recommend that a supply of (say 1000) charges may be sent out annually by the first mail of October. This would be beneficial not simply as an additional supply, but as insuring a genuine undeteriorated virus, which the Board would be enabled to transmit to any part of the Presidency, and more especially to Kamptee, Saugor, and parts of the Northern Division, where such numerous failures have occurred.

" From an aggregate strength of 5,68,403, the admissions from small pox were 415, and the deaths recorded 42; or in the ratio of 0·730 of attacks per thousand, and 0·073 of deaths; considerably under *one* case in the *thousand*, and the mortality is under *one tenth* of a *unit*."

20. With regard to vaccination the course of the affection in this part of India I am desired to observe that in the Native the pustule is never so large, nor is the surrounding inflammatory circle so conspicuous or extensive as in Europe, while at the same time it is important to notice that in European children vaccinated from a Native subject in India, the pustule is as large and the areola also as in Britain; and as to the power of protection, in the Native Army (the only records available that bear on this point) the instances of varioloid disease would certainly appear to be more frequent in India after vaccination, than in Europe— but still, with all this, the Board taking into consideration the many causes and sources of failure as regards vaccination in India,

and the consequent uncertainty in many cases of small pox, whether vaccination had been duly and regularly accomplished, give it as their opinion that vaccination in India exerts prophylactic powers against attacks of small pox as much and to as great an extent as in other countries.

21. It may be well to record here as bearing upon this point (the protective power of vaccination generally which is occupying much attention in England) that the testimony of the entire department is in favour of vaccination—true, many cases of small pox have been observed after vaccination, but many have been observed also after small pox inoculation, and even after attacks of small pox, a second has not unfrequently been observed, and strange to say the latter have been very generally of a severer character than attacks after vaccination, so that such observations should not and cannot in any way disparage vaccination; it is the greatest boon and blessing which science has ever been permitted to confer upon mankind.

22. The Government will observe from the appended Reports the great interest which the Civil Authorities have taken in the subject, and the beneficial effects that have resulted therefrom; altogether the Board have reason to be well satisfied with the operations of the year; they have acknowledged with approbation the zeal and exertion of the superintendents, and have earnestly solicited a continuance of their attention to this important subject.

23. The average expense per hundred of operations during the year has been (9–7–9) rupees nine, annas seven and pice nine—in 1847 an equal number cost (21–13–4) rupees twenty-one, annas thirteen and pice four.

24. The Board considering it desirable and necessary that the number of children vaccinated under one year should be exhibited separately, have provided for this being accomplished by a slight change in the present returns.

I have the honor to be,
Sir,
Your most obedient Servant,
ALEX. LORIMER, M. D.,
*Secretary Medical Board.*

Fort St. George, 2d June 1853.

EXTRACTS.

Chingleput. Asst. Surgeon A. O. Currie, M. D.

"I have the honor to report for the information of the Medical Board, that the number of persons vaccinated in this Zillah during the last year has amounted to 9,529 (of which 628 proved unsuccessful), giving an increase of 2,567 over the previous year. I have had reason to be satisfied with the manner in which the vaccinators have performed their duty with the exception of

Vencatasawmy Naick, whom I was obliged to reduce to the inferior grade owing to his neglectful conduct. I still pursue the system of fining in those cases in which I find that sufficient exertion is not made to procure subjects for vaccination."

"The inhabitants are now appreciating the value of vaccination to a greater extent than they did, and in many instances come voluntarily to get the operation done."

Nellore and Ongole. Asst. Surgeon J.M.Jackson.

| | |
|---|---|
| "Total number vaccinated during the year | 16,126 |
| Total successfully vaccinated | 15,312 |
| Total unsuccessfully vaccinated | 814 |
| Increase during the past year compared with the year 1851 | 4,333 |

"I imagine the increase is chiefly to be attributed to the perpetual orders issued by the superintendent to the vaccinators to be zealous, and to diffuse the benefits of vaccination as much as possible.

"The vaccinators have one and all been attentive, I have not had occasion to fine or otherwise punish one of them during the past year.

"Each vaccinator was removed from his, to another Talook in the month of March, a system I have pursued ever since my arrival here, and is one which I find to work well.

"The people in this Zillah still appear averse to have their children vaccinated, indeed they will make any kind of excuse to avoid it, such as cold, fever, diarrhœa, putting the operation off until the small pox shews itself, and so forth. Small pox has not prevailed to any extent during the past year.

"On the whole I think the inhabitants are aware of the beneficial effects of vaccination, but a great deal depends on the 'Head man' of the village—if he gets his children vaccinated, if indeed he only countenances it, the whole of the villagers will at once come forward and have their children vaccinated; but if he objects, the villagers are sure to do so."

Chittoor. Asst. Surgeon H. Nott.

"During the past year, 8,860 persons have been vaccinated, and of these 8,114 have been successful, and 546 unsuccessful—there is an excess of 2,547 persons vaccinated over the previous year, and I must ascribe this increase to the greater confidence the natives have in the operation as a prophylactic, and also to the extreme vigilance that has been observed over the vaccinators. Several of the vaccinators were very negligent in the performance of their duty, and during the previous quarter some of them dismissed, and this quarter I have had to caution the vaccinators of Palmanair and Tripetty to be more diligent on pain of dismissal.

"No change of system has been introduced since the former year, and I am not aware that any obstruction exists to the practising vaccination beyond the

disinclination among some of the castes to have the operation performed during the period they celebrate their festivals."

" The inhabitants in the immediate vicinity of the Sudder station appear anxious and willing to have their children vaccinated, but those who dwell in the more remote villages appear, as far as I can learn from observation and the report of the vaccinators, to be indifferent. I do not say that they positively object, but appear sceptical as to the benefits to be derived."

Masulipatam. Asst. Surgeon J. Crawford.

" There has been a very satisfactory and decided increase in the numbers vaccinated during this year, as compared with 1851, amounting to three thousand, three hundred and twenty-one—the proportion also of successful to unsuccessful cases is satisfactory."

" I am satisfied with the present vaccinators, they do their work well and diligently, and are successful. The people also would appear to have less prejudice to vaccination. I have not heard much of the practice of inoculation which is I hope decreasing—no reports have reached me during the past year of the existence of small pox in the town or district."

Rajahmundry. Asst. Surgeon J.L. Ranking.

" The operations of the past year are in excess considerably of those of the year 1851, and this independently of the labours of volunteers. I have reason to be satisfied with the manner in which the vaccinators have individually and collectively performed their duties, with the *one* exception noticed in my last quarterly report."

" I have had many opportunities of personally inspecting the labours of the vaccinators; and the children brought for my examination have presented well marked pocks. The virus supplied from the Medical Board office has failed in every instance, both in the hands of vaccinators, and in my own personal inoculations, though every precaution was taken, especially in preparing the solution of the crusts in which by common consent, the greatest reliance was to be placed.

" In conclusion I feel it my duty again to bring the case of the volunteers to the notice of the Board—they have now long laboured without remuneration, and clamour for pay."

Assistant Surgeon Ranking continues to shew great zeal in the cause of vaccination, and has given prizes to the best vaccinators during the year, which has exerted a very beneficial influence.

Vizagapatam. Asst. Surgeon J. H. Blackwell.

" During the last year 10,534 vaccinations have been performed in the district, of these 9,881 have been successful cases, a larger number than the records of the six years previous shew to have been vaccinated. This very large increase has been brought about by no very extraordinary exertions. The regular vaccinators have performed 5,163 operations; the volunteer vaccinators

5,371. Three regular vaccinators have been employed the whole of the year—one for only the latter six months. This man was a volunteer vaccinator, but as a vacancy existed, and being well pleased with the zeal and activity shewn by him in the discharge of his duties, he was admitted on the establishment and commenced regular work in July, since then he has performed 1,543 successful vaccinations, considerably above the average that used to be performed by the four vaccinators of the district in a whole year. The old vaccinators are paying more attention to their duties, but none of them come near this man—however the best of them has vaccinated as many in the last year as he did in the four years previously. Besides the very satisfactory number which this return presents, in another point of view it is highly gratifying—at Salloor, Bobbily, Maringhy and some of the Zemindaries adjacent to the hills, one vaccinator has been employed throughout the year, and has performed 1,245 successful operations in a country where hitherto vaccination was unknown, and where the Ooriah inoculators used to follow their vocations unmolested.

" The experience of the past year fully confirms the opinion I expressed in the last annual report, that vaccination had not had a fair trial in this district. The obstacles formerly represented as being insurmountable, I have found hardly deserving the name, in fact visionary, got up to conceal the total neglect of duty on the part of the vaccinators. I am fully persuaded with an adequate staff of vaccinators, thousands should take the place of the hundreds of former years.

" The lymph now in use is excellent—numerous supplies have been forwarded in the course of the year to the adjoining districts, and very favorable reports of its efficacy have been received."

" I must not omit to mention that the success of vaccination during the last year has been in a great measure attributable to the support I have received from the Collector and his Assistants, and also from the Government agent at Vizianagram, I am inclined to think in a short time the visits of the Ooriah inoculators will be altogether discontinued—during the last year very few reports of their presence in the district have been received.

" In concluding the report I must not fail to bring to the notice of the Medical Board, the case of the volunteer vaccinators who were entertained in compliance with their letter of the 29th November 1851. In the full expectation as therein conveyed to them, that they were to be entertained on pay of 7 Rupees per mensem after a probationary course of six months, and having been duly certified to be qualified for the duties of vaccinators, they most attentively and zealously performed their duties, but I regret to say, seeing now no hopes of their just expectations being realized, they have become disheartened, some of them have already left the service, and all are threatening to do so. Their

monthly returns have latterly very much decreased, and they complain they have not the means of subsistence, having devoted themselves to the duties of vaccinators, and relinquished, as many of them have done, other occupations whereby they gained a livelihood. I fear unless some provision is very soon made for these young men, they will entirely desert the profession they have chosen, and vaccination in this district will thereby suffer much, just at a time too when there seems every prospect of its being attended with the most successful results—many of them thoroughly understand their duties, and I can most confidently recommend them."

Bellary. Garrison Surgeon E. W. Eyre.

"I have to report 7,918 vaccinated in the Ceded Districts during 1852, being an increase of 4,903 over 1851. I shall review the work performed by the vaccinators long in the service, and those who have been lately entertained, separately. The former have vaccinated at an average for each 210 more than the average of the past five years. The following table will shew this.

| Names. | 1847 | 1848 | 1849 | 1850 | 1851 | Average for 5 years | 1852. |
|---|---|---|---|---|---|---|---|
| 1. Narrainsawmy.. .. .. | 613 | 668 | 584 | 743 | 591 | 640 | 889 |
| 2. Lutchmiah .. .. .. | 411 | 463 | 470 | 511 | 551 | 481 | 713 |
| 3. Venketreddy .. .. .. | 452 | 486 | 773 | 694 | 671 | 615 | 928 |
| 4. Tondroyen .. .. .. | 682 | 619 | 528 | 545 | 564 | 587 | 554 |
| 5. Chennacasavaloo .. .. | .... | .... | 189 | 472 | 472 | 337 | 667 |

"While the 3 first and 5th have considerably exceeded their former amount of work, the 4th has fallen off, and with this vaccinator I have had cause to be much dissatisfied. He shewed great reluctance to move from the place he had for years been located in. So indeed did the rest, but now that they are made aware that they are not to consider any one place their permanent abode, but are to itinerate wherever they may be required, they will I hope, now their first reluctance is overcome, carry on vaccination for the time to come cheerfully and zealously. Of the vaccinator first on this list, Narrainsawmy, I can speak confidently because he is at Bellary, and therefore under personal observation, which none of the other vaccinators are. Though advanced in years, I believe he exerts himself in offering the benefits of vaccination to all the inhabitants of the town—apply for it themselves, they never do.

"Ten volunteers were entertained agreeably to the Medical Board's Letter No. 1430, 9th October 1851, and having been thoroughly instructed in Bellary, were, on the expiration of their probation in June, appointed to the Talooks nominated by the Collector. Much could not be expected from them at the outset; they had to make themselves known among the people, and there was delay in some localities in establishing vaccinea. From August however they have made some progress, and this while having to contend against difficulties,

by far the greatest of which has been their want of pay now extending to 7 months. They have been in great need, and this has hindered the progress of vaccination, for when directed to proceed from one place to another, they could not in consequence of debt. To meet this need, I have made advances of money ; but for this, I question whether they would have remained in the service. As it is, out of the original number entertained, 4 have left, and 4 of those subsequently enlisted. The establishment of 3d class vaccinators is not complete by 2, but no one under present circumstances will offer. As I cannot continue to advance money, I trust that authority will soon arrive to issue pay, and thus relieve their necessities, and the superintendent of the unpleasant task of holding out promises, month after month, that are not realized.

" I endeavour to excite emulation by circulating reports of the progress of vaccination in other districts, particularly in the neighbouring one, Cuddapah."

Cuddapah. Asst. Surgeon J. Peterkin M. D.

" The period of time of recording the operations of the vaccinators which is to be brought under consideration in this report, has been one of trial in many points of view. It serves to shew there is room for the exercise of the vocation of a larger number of vaccinators than was formerly allotted to this district. It serves to shew that the supernumeraries engaged, though unpaid servants of Government, have yet worked almost as well as those who formerly received pay. It has been, however, a trial of greatly increased labour to the local superintendent, and to the Dresser attached to the Jail Hospital. It is, notwithstanding all unfavorable points of consideration, a source of much pleasure to find that, with the greatly increased number of the labourers in the field, still the average of each individual is above that of former years in this district, this having been in the preceding year 1,491, while it is in the year under review 1,448. Looking to the operation of individuals, it will be found that the following numbers have been attained by eight individuals, viz. 3,602, 2,083, 2,077, 1,910, 1,908, 1,902, 1,822, and 1,741, and of these it is right to note, that the one who stands at the head is a man who has received no pay, and that of the rest only the 2d, 3d, 4th and 7th in order were paid vaccinators. It will be seen that the total number vaccinated by the vaccinators is 28,968."

" The average number vaccinated is not, however, nearly so many as I believe may yet be in all fairness looked for from each vaccinator."

" There has been no difficulty in keeping up a good supply of active and good lymph. It is very remarkable however that the supplies forwarded from Madras, as recently received from Europe, almost invariably failed of producing any sensible effect."

" In consequence of the increased number of paid vaccinators, and those appointed this year to the district not having been in operation during the whole of the period under review, I think it desirable to record separately the work of

the four vaccinators who have been employed during the whole period. In striking out thus the record of the operations of the other three, it will be seen, that there is a very marked increase over the work of the four paid vaccinators employed during the year 1851, in fact this will be more apparent by thus tabulating the works of the last three years.

In 1850 each of four vaccinators did an average of 1,104, or an increase of 131 over 1849.

In 1851 each of four vaccinators did an average of 1,491, or an increase of 387 over 1850.

In 1852 each of four vaccinators did an average of 1,887, or an increase of 376 over 1851."

Calicut. Asst. Surgeon W.H.Davids.

" By the accompanying annual return, it will be observed that the number of persons vaccinated throughout the year in this district has been 15,596, of which 12,301 are entered as successful, and 3,295 unsuccessful. This shews an increase of work done by the vaccinators, there having been 1,597 more persons vaccinated during the past year than in 1851, and the successful cases (if the reports be true) also greater than in last year."

" Two second class vaccinators were dismissed for sending in false returns."

" The lymph, whether from climate or carelessness or some occult reason, which has been supplied regularly by the vaccinators in glasses (well secured,) has invariably failed both in the hands of my predecessor and in my own."

Cannanore. Surgeon T. White.

" The vaccinators continue to bring in weekly for inspection children that have been vaccinated in order to test the quality of the virus in use, which it is gratifying to report has been found perfectly genuine throughout the past year."

" Small pox has not prevailed so greatly in those districts this year as on former occasions; the cases reported being less by 127 during 1852, and the majority have terminated favorably: some of those had been vaccinated in early life, but whether successfully or otherwise could not be ascertained.

" I continue to experience the same difficulty in carrying on vaccination under my own supervision as complained of in my last annual report. The people are either reluctant or apathetic, or will not be troubled to bring their children to the Hospital."

" The vaccinators are changed from one Talook to another every 6 months.

" These men evince a greater zeal in the performance of their duties than heretofore, and I am well satisfied with their efficiency, not having had occasion to inflict a single fine during the past year."

Tellicherry. Asst. Surgeon P. H. West.

" The vaccinators with one exception have evinced their usual diligence, there has been an increase of 220 compared to the number of vaccinated in the

preceding year. There were 4,741 vaccinated during the whole year, and of these only 319 proved unsuccessful, being 1 in 19½, which speaks favourably of the genuineness of the lymph used, which the vaccinators are at all times able to produce.

" I have also to mention the dismissal from his post of 2d class vaccinator Emen Paneker on the 3d December on the charge of sending in false returns &c. at the recommendation of the Joint Magistrate after investigating the case. Since this deception was detected, a stricter supervision is kept over the vaccinators employed in the district, and every means used to conduce as much as possible to the spread of vaccination."

" In forwarding my Annual Report on the working of the vaccine department under my superintendence, I have first to observe the great increase in the number of vaccinations for the year which has just closed, compared with that returned for 1851. Mangalore. Asst. Surgeon D. D. Foulis, M. D.

" By the accompanying return it will be seen that the number of persons vaccinated in this district has been 13,961 out of this 722 are entered as unsuccessful, and 13,239 successful—being in the proportion of 1 in 18⅓."

" The number of vaccinations performed by the eight vaccinators in each quarter of the past year, with the proportion of failures to successful cases, and the average daily number of cases performed by each subordinate for the respective periods is given below in a tabular form.

" In explanation of the comparatively small number entered for the first quarter, I must remark, that the cases performed by the 3d class vaccinators were not embodied in the monthly returns until April.

| When vaccinated. | Successful cases. | Unsuccessful cases. | Total. | Average daily No. performed by each Subordinate. |
|---|---|---|---|---|
| 1st Quarter .... | 2,753 | 81 | 2,834 | 3¾ |
| 2d do .... | 3,530 | 133 | 3,663 | 5 |
| 3d do .... | 3,799 | 253 | 4,052 | 5½ |
| 4th do .... | 3,157 | 255 | 3,412 | 4½ |

" I have also to report that the number of cases vaccinated by the medical subordinates in the past year amounted to 2,145, making a total of 16,106 vaccinations—the proportion of failures to successful cases in those performed by the Dressers was 225 to 1,920, or as nearly as possible 1 in 8½.

" In the month of September I entertained two volunteers, whose names with the number of cases vaccinated by them are given in a separate return. They have together vaccinated 372 persons, making the aggregate number of vaccinations for the whole year to amount to 16,478.

" A considerable increase is thus shewn to have taken place—an increase of no less than 7,125 in the number of vaccinations performed by the vaccinators, including the 3d class men, over that returned for the previous year."

" The fact however that a first class man of 25 years' standing in the service was detected in sending in a false register must throw suspicion over the truthfulness of these returns—the man was discharged."

" Small pox prevailed to some considerable extent in south Canara in the past year. From the reports which I have lately received from the Collector, it would appear that the number of cases which occurred in this district from 1st October 1851 to 30th September 1852, amounted to 3,948—of these 1,093 proved fatal, being a little more than 1 in 3½.

" In February and March the disease prevailed greatly in Mangalore, Bekul and Cundapoor, and in Oodipee from April to September, during which period 1,146 cases occurred in that Talook. Of this number the amount of casualties was 286 being 25 per cent—in the whole year the number in this Talook alone was 1,445, of which 360 proved fatal, the ratio of mortality being still about 1 in 4.

" In Mangalore there were 675 cases from 1st October 1851 to 30th September 1852—out of which the casualties amounted to 172—the ratio of mortality being very much the same as in other places, namely 25 per cent.

" It would appear therefore from what has now been stated that the district of south Canara suffered much less during the late outbreak of small pox, than it did in 1846, when it prevailed to such an extent, that the number of casualties alone reported to have resulted from the disease, amounted to the large number of 4,691."

Honore. Asst. Surgeon W. A. Leslie.

" In sending in the accompanying Annual Return of vaccination for the past year, I have the satisfaction of remarking that there is a decided increase in the numbers compared with the former return; on the general total the increase is 7,974—on the successful cases the increase is 7,544—the number vaccinated by the old establishment alone being more than double that of 1851. I have exercised as much superintendence as lay in my power over the vaccinators, but as I have before pointed out, most of the operations are carried on at such a distance from me that personal surveillance is impossible. I have every reason to believe that the several vaccinators have been constantly at their duties.

" The lymph sent to me every month I find to be pure, and when quite fresh, powerful enough to produce the true vesicle and disease, but if it has been kept for a fortnight or ten days in the ordinary way on glasses protected by wax, it becomes inert or nearly so." " A supply of lymph from England on ivory points enclosed in Goldbeater's skin, was successfully used, and produced the largest vesicles I have seen in the country—the lymph now in use is the result of that which was obtained from those vesicles."

Coimbatore. Asst. Surgn. H. W. Porteous.

" The year's operations have been carried on in every Talook of the district with greater success in some than others. The corps of vaccinators have been

on the whole industrious, and their aggregate work exhibit a return of 8,666 vaccinations, being an increase of 2,087 over last year—their unsuccessful cases amount to 305 or 3¾ per cent.

" The vaccination abstracts of the volunteers form the very considerable addition of 2,525 to the above amount, giving for the 12 months 11,191, and with the small addition of the Dressers, shew a total of 11,588.

" The supply of lymph has been of unexceptionable quality, and always available from those vaccinated by myself at the Dispensary to ensure none being sent *out* but what was genuine.

" The district has been particularly free from small pox, no instance of its appearing in an epidemic form being brought to notice.

" The volunteers are a steady class of young men, and deserving of employment; having them available for immediate service forms a check on those who are inclined to be negligent and idle—having occasion to fine one twice without effect, I was compelled to make an example by suspending him for 2 months, and placing a volunteer to act, which I circulated as a warning to the others."

Combaconum. Asst. Surgeon J. B. Stevens.

" In drawing up the special Annual Report for vaccination for the year 1852, it gives me much pleasure in stating that there has been a very considerable increase in the number vaccinated, which amount to 11,125, out of which 455 were unsuccessful, leaving a total number of 10,670, being 3,146 more than the year before who have received the benefits of vaccination. The failures throughout the year with the exception of the last three months have been pretty equally divided, and I attribute the increase of failures for those three months to the state of the weather, which was wet and damp, and much against the lymph succeeding. I might also refer it to the number of festivals, as the natives do not like the children vaccinated during those periods, and if vaccinated, care is not taken to allow the pustule to come to perfection, either being washed or rubbed off accidentally, and of course put down as failures. Throughout the year six vaccinators have been employed, and on the average each man has vaccinated 1,854 subjects.

" I have every reason to believe the reports sent in monthly by the vaccinators are correct as to their numbers; I have made it a duty to ask of the Tahsildars and Head men at the different villages, whether the vaccinators shew the cases to them. I either spoke personally to them or have written, and all give very favourable report of the vaccinators. I found it necessary to recommend the discharge of 2d class vaccinator Shashia, as being a man of bad character, and incapable of performing his duty—he was attached to the Sheeally Talook —he had been brought to the notice of the Collector on two or three previous occasions, and was once suspended four months. Otherwise I have had every reason to be perfectly satisfied with the manner in which all the vaccinators

have performed their duties, and I hear good character of them from the heads of the different Talooks.

" In July last I entertained five volunteers; they vaccinated between them 379 cases, of which 80 were unsuccessful. I usually went into the town one day in the week for the purpose of instructing these men, and all the cases vaccinated under my own immediate superintendence—they have all been very zealous and anxious to learn the operation of vaccination, and can now perform it very well. Before I entertained the volunteers, the Dresser attached to the Jail vaccinated 147 cases, 13 unsuccessful, and the total number vaccinated during the year under my superintendence, are as follows:

| | | | |
|---|---|---|---|
| Vaccinated by the Talook vaccinators.......... | 11,125.... | 455 | unsuccessful. |
| Vaccinated by the 1st Dresser Appoo.......... | 147.... | 13 | do. |
| Vaccinated by the volunteers.................. | 379.... | 80 | do. |
| Total.. | 11,651 | 548 | |

" During the year there have been 17 cases of small pox and only three casualties in the Talooks of Combaconum and Valangeman."

Madura, Ramnad and Dindigul. Asst. Surgeon J. Colebrook.

" Each vaccinator has had a volunteer under his instruction, and from the increase of operations performed over those of any former period, I have every reason to believe that the volunteers have been zealous in their duties."

" The comparative immunity from small pox which the several districts have enjoyed leads me to entertain a sanguine hope that the process has been very successful, the vaccinators assuring me that where small pox has prevailed it has done so amongst families who were opposed to vaccination. Frequent complaints have been made by the vaccinators that they are not sufficiently supported by the native officials, such as Natamgars and Curnums, and I believe such statements are attended with much truth. I scarcely know how the evil can be remedied, unless the Civil powers enforce these men to render more aid, or the superintendent is invested with more influence than is at present at his command to enable him to do so. Another obstacle consists in the parents of the vaccinated children refusing lymph to be taken for further operations—this especially in the Dindigul district has exercised a very injurious effect towards the spread of the prophylactic—the subject has been brought to the notice of the Civil authorities, and I trust some measures will be adopted to prevent a recurrence of the evil frequently complained of. Much opposition to vaccination exists in some parts of the Ramnad district, but this chiefly arises from a superstitious dread which the natives entertain for the goddess of small pox, who must be invoked, and till a favourable answer be given by the priests, no operation is permitted."

(True extracts.)

Alex. Lorimer,

*Secretary Medical Board.*

**General Return** of Persons vaccinated, exhibiting successful and unsuccessful cases in the Civil Department at the Presidency and Subordinate Stations during the year 1852.

| | | 1 | | 2 | | 3 | | 4 | | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | 12 | | 13 | 14 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Classes and sex of persons. | | | | | | | | | | | | | | Results compared with those of 1851 | | | | | | | |
| | Stations, &c. | Christians | | Hindoos | | Mahomedans | | Total | | | | | | | | Increase of | | Decrease of | | | Average expense for every hundred persons vaccinated | | |
| | | Males | Females | Males | Females | Males | Females | Males | Females | Successful | Unsuccessful | Total | Ratio per thousand of failures to number vaccinated | Number of vaccinators | Average number of persons vaccinated by each vaccinator | Total vaccinated | Average number vaccinated by each vaccinator | Total vaccinated | Average number vaccinated by each vaccinator | Pay of vaccinators | | | |
| | | | | | | | | | | | | | | | | | | | | Rs. | R. | A. | P. |
| Presidency | Madras | 388 | 320 | 4396 | 4785 | 302 | 298 | 5086 | 5403 | 9856 | 633 | 10489 | 60·3 | 8 | 1311 | ...... | 146 | 2230 | ...... | 1341 | 12 | 12 | 6 |
| Centre | Poonamallee | 72 | 68 | 1809 | 1558 | 66 | 46 | 1947 | 1672 | 3275 | 344 | 3619 | 95·0 | 3 | 1206 | ...... | 60 | 781 | ...... | 504 | 13 | 14 | 9 |
| | Chittoor | 256 | 229 | 4000 | 3361 | 479 | 345 | 4735 | 3935 | 8124 | 546 | 8670 | 62·9 | 8 | 1084 | 2357 | 295 | .... | ...... | 1092 | 12 | 9 | 6 |
| | Guntoor | 17 | 12 | 2878 | 2523 | 212 | 183 | 3107 | 2718 | 5616 | 209 | 5825 | 35·8 | 5 | 1165 | 1321 | 39 | .... | ...... | 588 | 10 | 1 | 6 |
| | Nellore and Ongole | 23 | 9 | 7987 | 7319 | 426 | 349 | 8436 | 7677 | 15313 | 800 | 16113 | 49·6 | 6 | 2686 | 4320 | 721 | .... | ...... | 798 | 4 | 15 | 2 |
| | Vellore | 134 | 103 | 1719 | 1456 | 525 | 409 | 2378 | 1968 | 4197 | 149 | 4346 | 34·2 | 4 | 1087 | 485 | 122 | .... | ...... | 546 | 12 | 9 | 0 |
| | Chingleput | 69 | 65 | 4863 | 4321 | 106 | 105 | 5038 | 4491 | 8901 | 628 | 9529 | 65·9 | 6 | 1588 | 2567 | 428 | .... | ...... | 882 | 9 | 4 | 1 |
| | Verdachellum | 19 | 29 | 2468 | 2139 | 9 | 5 | 2496 | 2173 | 4545 | 124 | 4669 | 26·5 | 4 | 1167 | 449 | 112 | .... | ...... | 546 | 11 | 11 | 1 |
| | Cuddalore | 50 | 42 | 1764 | 1588 | 50 | 40 | 1864 | 1670 | 3325 | 209 | 3534 | 59·1 | 4 | 884 | ...... | ...... | 69 | 17 | 546 | 15 | 7 | 2 |
| | Total.. | 640 | 557 | 27488 | 24265 | 1873 | 1482 | 30001 | 26304 | 53296 | 3009 | 56305 | 53·4 | 40 | 1408 | 10649 | 261 | .... | ...... | 5502 | 9 | 12 | 4 |
| Northern | Ganjam | 0 | 1 | 2534 | 2010 | 11 | 2 | 2545 | 2013 | 4320 | 238 | 4558 | 52·2 | 3 | 1519 | 2579 | 859 | .... | ...... | 378 | 8 | 4 | 8 |
| | Chicacole | 3 | 2 | 277 | 246 | 5 | 1 | 285 | 249 | 442 | 92 | 534 | 172·2 | 1 | 534 | ...... | ...... | 32 | 32 | 126 | 23 | 9 | 6 |
| | Vizagapatam | 3 | 8 | 2952 | 2346 | 1 | 1 | 2956 | 2355 | 5112 | 199 | 5311 | 37·4 | 4 | 1328 | 4175 | 1042 | .... | ...... | 483 | 9 | 1 | 6 |
| | Ingeram | 0 | 3 | 4527 | 3582 | 63 | 27 | 4590 | 3612 | 7286 | 916 | 8202 | 111·6 | 4 | 2051 | 2269 | 568 | .... | ...... | 546 | 6 | 10 | 6 |
| | Rajahmundry | 3 | 4 | 4429 | 3506 | 67 | 40 | 4499 | 3550 | 7207 | 842 | 8049 | 104·6 | 4 | 2012 | 356 | 89 | .... | ...... | 546 | 6 | 12 | 6 |
| | Masulipatam | 21 | 12 | 4401 | 4263 | 262 | 254 | 4684 | 4529 | 7931 | 1282 | 9213 | 139·1 | 4 | 2303 | 3321 | 830 | .... | ...... | 546 | 5 | 14 | 9 |
| | Total.. | 30 | 30 | 19120 | 15953 | 409 | 325 | 19559 | 16308 | 32298 | 3569 | 35867 | 99·5 | 20 | 1793 | 12668 | 622 | .... | ...... | 2625 | 7 | 5 | 1 |
| Southern | Trichinopoly | 673 | 527 | 1752 | 1696 | 221 | 167 | 2646 | 2390 | 4252 | 784 | 5036 | 155·6 | 5 | 1007 | 437 | ...... | .... | 143 | 714 | 14 | 2 | 10 |
| | Salem | 158 | 102 | 2876 | 2408 | 130 | 86 | 3164 | 2596 | 5309 | 451 | 5760 | 78·2 | 7 | 823 | 1578 | ...... | .... | 222 | 966 | 16 | 12 | 4 |
| | Tranquebar | 138 | 116 | 2047 | 1845 | 41 | 29 | 2226 | 1990 | 4157 | 59 | 4216 | 13·9 | 4 | 1054 | 966 | 242 | .... | ...... | 546 | 12 | 15 | 2 |
| | Combaconum | 377 | 346 | 5078 | 4897 | 189 | 149 | 5644 | 5392 | 10603 | 433 | 11036 | 39·2 | 6 | 1839 | 3057 | 509 | .... | ...... | 798 | 7 | 3 | 3 |
| | Tanjore | 252 | 218 | 2516 | 2384 | 61 | 39 | 2829 | 2641 | 5112 | 358 | 5470 | 65·4 | 4 | 1368 | 380 | 96 | .... | ...... | 546 | 9 | 15 | 8 |
| | Madura | 64 | 55 | 3658 | 3419 | 99 | 56 | 3821 | 3530 | 7071 | 280 | 7351 | 38·0 | 4 | 1838 | 1546 | 387 | .... | ...... | 546 | 7 | 6 | 10 |
| | Ramnad | 382 | 370 | 2744 | 2369 | 72 | 68 | 3198 | 2807 | 5807 | 198 | 6005 | 32·9 | 4 | 1501 | 507 | 127 | .... | ...... | 546 | 9 | 1 | 5 |
| | Dindigul | 196 | 184 | 2778 | 2580 | 112 | 67 | 3086 | 2831 | 5529 | 388 | 5917 | 65·5 | 4 | 1479 | 634 | 158 | .... | ...... | 546 | 9 | 3 | 7 |
| | Tinnevelly | 1111 | 979 | 2177 | 1918 | 85 | 51 | 3373 | 2948 | 5913 | 408 | 6321 | 64·5 | 7 | 903 | 583 | ...... | .... | 53 | 966 | 15 | 4 | 6 |
| | Coimbatore | 128 | 101 | 4200 | 3863 | 198 | 117 | 4526 | 4081 | 8303 | 304 | 8607 | 35·3 | 7 | 1230 | 2028 | ...... | .... | 475 | 826 | 9 | 9 | 6 |
| | Travancore from January to July inclusive. | 459 | 304 | 728 | 419 | 159 | 50 | 1346 | 773 | 1846 | 273 | 2119 | 128·8 | 4 | 530 | ...... | ...... | 2084 | 521 | 308 | 14 | 8 | 6 |
| | Cochin do | 1209 | 727 | 1545 | 1373 | 72 | 62 | 2826 | 2162 | 4710 | 278 | 4988 | 55·7 | 4 | 1247 | ...... | ...... | 2868 | 717 | 318½ | 6 | 6 | 1 |
| | Total.. | 5147 | 4029 | 32099 | 29171 | 1439 | 941 | 38685 | 34141 | 68612 | 4214 | 72826 | 57·8 | 60 | 1214 | 6764 | ...... | .... | 58 | 7626½ | 10 | 7 | 6 |
| Malabar & Canara. | Mangalore | 1247 | 938 | 5564 | 4283 | 1100 | 829 | 7911 | 6050 | 13239 | 722 | 13961 | 51·7 | 8 | 1745 | 7125 | 269 | .... | ...... | 861 | 6 | 2 | 8 |
| | Honore | 167 | 137 | 6393 | 5630 | 114 | 99 | 6674 | 5866 | 11998 | 542 | 12540 | 43·2 | 6 | 2090 | 7980 | 950 | .... | ...... | 672 | 5 | 5 | 8 |
| | Cannanore | 96 | 64 | 1759 | 684 | 1078 | 463 | 2933 | 1211 | 3780 | 364 | 4144 | 87·8 | 4 | 1036 | 223 | 56 | .... | ...... | 546 | 13 | 2 | 9 |
| | Tellicherry | 28 | 32 | 2730 | 1342 | 660 | 268 | 3418 | 1642 | 4741 | 319 | 5060 | 63·0 | 5 | 1012 | 220 | 44 | .... | ...... | 588 | 11 | 9 | 11 |
| | Calicut & Angaddipooram | 249 | 88 | 8121 | 3258 | 3356 | 757 | 11726 | 4103 | 12307 | 3522 | 15829 | 222·5 | 11 | 1439 | 1537 | 140 | .... | ...... | 1295 | 8 | 2 | 10 |
| | Total.. | 1787 | 1259 | 24567 | 15197 | 6308 | 2416 | 32662 | 18872 | 46065 | 5469 | 51534 | 106·1 | 34 | 1516 | 17085 | 312 | .... | ...... | 3962 | 7 | 11 | 0 |
| Mysore | Bangalore | 62 | 52 | 1997 | 1561 | 109 | 74 | 2168 | 1687 | 3697 | 158 | 3855 | 40·9 | 4 | 964 | ...... | ...... | 206 | 51 | 546 | 14 | 2 | 7 |
| | Mysore Province | 97 | 67 | 23232 | 20734 | 1136 | 926 | 24465 | 21727 | 44198 | 1994 | 46192 | 43·1 | 49 | 943 | 270 | ...... | .... | 12 | ...... | .. | .. | .. |
| | Coorg District | 64 | 50 | 680 | 438 | 24 | 23 | 768 | 511 | 1204 | 75 | 1279 | 58·6 | 1 | 1279 | 390 | 390 | .... | ...... | 126 | 9 | 13 | 7 |
| | Total.. | 223 | 169 | 25909 | 22733 | 1269 | 1023 | 27401 | 23925 | 49099 | 2227 | 51326 | 43·3 | 54 | 950 | 454 | ...... | .... | 8 | 672 | 13 | 1 | 5 |
| Ceded Districts | Bellary | 89 | 76 | 1560 | 1384 | 367 | 275 | 2016 | 1735 | 3257 | 494 | 3751 | 131·6 | 5 | 750 | 902 | 180 | .... | ...... | 672 | 17 | 14 | 7 |
| | Cuddapah | 133 | 86 | 5010 | 4564 | 499 | 471 | 5642 | 5121 | 9639 | 1124 | 10763 | 104·4 | 7 | 1538 | 4800 | 47 | .... | ...... | 840 | 7 | 12 | 10 |
| | Kurnool | 167 | 31 | 319 | 224 | 163 | 120 | 649 | 375 | 865 | 159 | 1024 | 155·2 | 2 | 512 | ...... | ...... | 205 | 102 | 252 | 24 | 9 | 9 |
| | Total.. | 389 | 193 | 6889 | 6172 | 1029 | 866 | 8307 | 7231 | 13761 | 1777 | 15538 | 114·3 | 14 | 1110 | 5497 | 197 | .... | ...... | 1764 | 11 | 5 | 7 |
| | General Total.. | 8604 | 6557 | 140468 | 118276 | 12629 | 7351 | 161701 | 132184 | 272987 | 20898 | 293885 | 71·1 | 230 | 1277 | 50887 | 153 | .... | ...... | 23492½ | 9 | 7 | 9 |

Fort Saint George: Medical Board Office, 2d June 1853.

ALEX. LORIMER, M. D.,
*Secretary Medical Board.*

General Abstract of the preceding Return.

| Divisions. | Classes and sex of persons. Christians. Males. | Christians. Females. | Hindoos. Males. | Hindoos. Females. | Mahomedans. Males. | Mahomedans. Females. | Total. Males. | Total. Females. | Successful. | Unsuccessful. | Total. | Ratio per thousand of failures to number vaccinated. | Number of vaccinators. | Average number of persons vaccinated by each vaccinator. | Results compared with those of the preceding year. Increase of Total vaccinated. | Increase of Average number vaccinated by each vaccinator. | Decrease of Total vaccinated. | Decrease of Average number vaccinated by each vaccinator. | Pay of vaccinators. Rupees | Average expense for every hundred persons vaccinated. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Presidency | 388 | 320 | 4396 | 4785 | 302 | 298 | 5086 | 5403 | 9856 | 633 | 10489 | 60·3 | 8 | 1311 | ...... | 146 | 2230 | ...... | 1341 | 12 | 12 | 6 |
| Centre | 640 | 557 | 27488 | 24265 | 1873 | 1482 | 30001 | 26304 | 53296 | 3009 | 56305 | 53·4 | 40 | 1408 | 10649 | 261 | .... | ...... | 5502 | 9 | 12 | 4 |
| Northern | 30 | 30 | 19120 | 15953 | 409 | 325 | 19559 | 16308 | 32298 | 3569 | 35867 | 99·5 | 20 | 1793 | 12668 | 622 | .... | ...... | 2625 | 7 | 5 | 1 |
| Southern | 5147 | 4029 | 32099 | 29171 | 1439 | 941 | 38685 | 34141 | 68612 | 4214 | 72826 | 57·8 | 60 | 1214 | 6764 | ...... | .... | 58 | 7626½ | 10 | 7 | 6 |
| Malabar & Canara | 1787 | 1259 | 24567 | 15197 | 6308 | 2416 | 32662 | 18872 | 46065 | 5469 | 51534 | 106·1 | 34 | 1516 | 17085 | 312 | .... | ...... | 3962 | 7 | 11 | 0 |
| Mysore | 223 | 169 | 25909 | 22733 | 1269 | 1023 | 27401 | 23925 | 49099 | 2227 | 51326 | 43·3 | 54 | 950 | 454 | ...... | .... | 8 | 672 | 13 | 1 | 5 |
| Ceded Districts | 389 | 193 | 6889 | 6172 | 1029 | 866 | 8307 | 7231 | 13761 | 1777 | 15538 | 114·3 | 14 | 1110 | 5497 | 197 | .... | ...... | 1764 | 11 | 5 | 7 |
| Total | 8604 | 6557 | 140468 | 118276 | 12629 | 7351 | 161701 | 132184 | 272987 | 20898 | 293885 | 71·1 | 230 | 1277 | 50887 | 153 | .... | ...... | 23492½ | 9 | 7 | 9 |
| Comparative Statement exhibiting the number of persons vaccinated in the undermentioned years, viz. from 1844 to 1852. | | | | | | | | | | | | | | | | | | | | | | |
| Years... 1844 | 4937 | 4017 | 73821 | 58925 | 11313 | 5787 | 90071 | 68729 | ...... | ...... | 158800 | ...... | ... | .... | ...... | ...... | .... | ...... | ...... | .. | .. | .. |
| 1845 | 5645 | 4523 | 78356 | 64761 | 11415 | 6351 | 95416 | 75635 | ...... | ...... | 171051 | ...... | ... | .... | 12251 | ...... | .... | ...... | ...... | .. | .. | .. |
| 1846 | 6376 | 4857 | 75658 | 61249 | 10189 | 5503 | 92223 | 71609 | ...... | ...... | 163832 | ...... | ... | .... | ...... | ...... | 7219 | ...... | ...... | .. | .. | .. |
| 1847 | 5338 | 4505 | 73931 | 59779 | 10148 | 5323 | 89417 | 69607 | 147523 | 11501 | 159024 | 72.3 | 210 | 757 | ...... | ...... | 4808 | ...... | 24699 | 21 | 13 | 4 |
| 1848 | 6253 | 5031 | 85555 | 69144 | 10632 | 5479 | 102440 | 79654 | 167974 | 14120 | 182094 | 77.5 | 210 | 867 | 23070 | 110 | .... | ...... | 23457 | 17 | 8 | 4 |
| 1849 | 7148 | 5685 | 88959 | 72049 | 10719 | 5625 | 106826 | 83359 | 175407 | 14778 | 190185 | 77.7 | 214 | 888 | 8091 | 21 | .... | ...... | 23457 | 15 | 9 | 4 |
| 1850 | 7393 | 5947 | 95377 | 78440 | 11154 | 5786 | 113924 | 90173 | 189927 | 14170 | 204097 | 69.4 | 215 | 949 | 13912 | 61 | .... | ...... | 23166½ | 14 | 7 | 10 |
| 1851 | 9284 | 7303 | 113214 | 93762 | 12327 | 7108 | 134825 | 108173 | 226645 | 16353 | 242998 | 67.3 | 217 | 1124 | 38901 | 175 | .... | ...... | 23058 | 11 | 11 | 2 |
| 1852 | 8604 | 6557 | 140468 | 118276 | 12629 | 7351 | 161701 | 132184 | 272987 | 20898 | 293885 | 71.1 | 230 | 1277 | 50887 | 153 | .... | ...... | 23492½ | 9 | 7 | 9 |

# APPENDIX.

*No. 1.—*Table *shewing the number vaccinated monthly, the unsuccessful cases and the ratio per 1000 in each Division for the year* 1852.

| Months. | Presidency. | | | Centre. | | | Northern. | | | Southern. | | | Malabar & Canara. | | | Mysore. | | | Ceded Districts. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number vaccinated. | Unsuccessful. | Ratio per 1000 of failures. | Number vaccinated. | Unsuccessful. | Ratio per 1000 of failures. | Number vaccinated. | Unsuccessful. | Ratio per 1000 of failures. | Number vaccinated. | Unsuccessful. | Ratio per 1000 of failures. | Number vaccinated. | Unsuccessful. | Ratio per 1000 of failures. | Number vaccinated. | Unsuccessful. | Ratio per 1000 of failures. | Number vaccinated. | Unsuccessful. | Ratio per 1000 of failures. |
| January .......... | 846 | 45 | 53·1 | 4347 | 201 | 46·2 | 2449 | 273 | 111·0 | 5922 | 352 | 59·4 | 3594 | 449 | 124·9 | 4311 | 138 | 32·0 | 991 | 126 | 127·1 |
| February .......... | 625 | 40 | 64·0 | 4550 | 259 | 56·8 | 3001 | 290 | 96·6 | 5991 | 351 | 58·5 | 3945 | 372 | 94·2 | 4400 | 181 | 41·1 | 1077 | 115 | 106·7 |
| March ........... | 851 | 57 | 66·9 | 4746 | 260 | 54·7 | 3292 | 256 | 77·7 | 6027 | 384 | 63·7 | 4013 | 407 | 101·4 | 4490 | 183 | 40·7 | 1438 | 154 | 107·0 |
| April ........ ... | 944 | 70 | 74·1 | 4608 | 294 | 63·8 | 2704 | 341 | 126·1 | 5738 | 433 | 75·4 | 4512 | 390 | 86·4 | 4638 | 165 | 35·5 | 1106 | 147 | 132·9 |
| May............ . | 912 | 50 | 54·8 | 4457 | 261 | 58·7 | 2394 | 227 | 94·7 | 5963 | 371 | 62·2 | 4122 | 421 | 102·1 | 4384 | 150 | 34·2 | 1233 | 151 | 122·4 |
| June ............ | 865 | 58 | 67·0 | 4510 | 207 | 45·8 | 2188 | 310 | 141·6 | 6145 | 355 | 57·7 | 4080 | 425 | 104·1 | 3928 | 177 | 45·0 | 1313 | 154 | 117·2 |
| July............. | 954 | 62 | 64·9 | 5052 | 261 | 51·6 | 2936 | 318 | 108·3 | 6506 | 374 | 57·4 | 4322 | 476 | 110·1 | 4223 | 206 | 48·7 | 1388 | 156 | 112·3 |
| August .......... | 996 | 62 | 62·2 | 5085 | 239 | 47·0 | 3269 | 312 | 95·4 | 5895 | 296 | 50·2 | 4878 | 486 | 99·6 | 4139 | 207 | 50·0 | 1509 | 154 | 102·0 |
| September ........ | 935 | 55 | 58·8 | 4856 | 262 | 53·9 | 3419 | 305 | 89·2 | 6112 | 314 | 51·3 | 4756 | 547 | 115·0 | 4018 | 201 | 50·0 | 1424 | 151 | 106·0 |
| October .......... | 795 | 33 | 41·5 | 4661 | 211 | 45·2 | 3347 | 293 | 87·5 | 6303 | 349 | 55·3 | 4519 | 481 | 106·4 | 4259 | 220 | 51·6 | 1344 | 142 | 105·6 |
| November ........ | 905 | 61 | 67·4 | 4773 | 303 | 63·4 | 3541 | 307 | 86·6 | 6055 | 319 | 52·6 | 4263 | 482 | 113·0 | 4307 | 231 | 53·6 | 1315 | 145 | 110·2 |
| December ........ | 861 | 40 | 46·4 | 4654 | 251 | 53·9 | 3327 | 337 | 101·2 | 6169 | 316 | 51·2 | 4530 | 533 | 117·6 | 4229 | 168 | 39·7 | 1400 | 182 | 130·0 |
| Total.... | 10489 | 633 | 60·3 | 56305 | 3009 | 53·4 | 35867 | 3569 | 99·5 | 72826 | 4214 | 57·8 | 51534 | 5469 | 106·1 | 51326 | 2227 | 43·3 | 15538 | 1777 | 114·4 |

*No. 2.—*Table *shewing the number vaccinated and of failures; also the ratio per* 1000 *monthly in Districts or Stations where the failures have been greatest, for the year* 1852.

| Months. | Poonamallee. | | | Chicacole. | | | Ingeram. | | | Rajahmundry. | | | Masulipatam. | | | Trichinopoly. | | | Salem. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated | Failures. | Ratio per 1000 of failures. | Number vaccinated | Failures. | Ratio per 1000 of failures. |
| January .... | 302 | 26 | 86·0 | 41 | 5 | 121·9 | 578 | 20 | 34·6 | 806 | 122 | 151·3 | 761 | 95 | 124·8 | 404 | 66 | 163·3 | 395 | 17 | 43·0 |
| February .... | 307 | 27 | 87·9 | 21 | 3 | 142·8 | 594 | 15 | 25·2 | 895 | 113 | 113·5 | 833 | 110 | 132·0 | 429 | 78 | 181·8 | 339 | 23 | 67·8 |
| March ...... | 315 | 33 | 104·7 | 54 | 6 | 111·1 | 650 | 23 | 35·3 | 893 | 117 | 131·0 | 833 | 66 | 79·2 | 421 | 60 | 142·5 | 439 | 55 | 125·2 |
| April ...... | 291 | 30 | 103·0 | 41 | 11 | 268·2 | 532 | 60 | 112·7 | 604 | 98 | 162·2 | 951 | 154 | 161·9 | 386 | 62 | 160·6 | 400 | 47 | 117·5 |
| May........ | 300 | 28 | 93·3 | 31 | 10 | 322·5 | 651 | 91 | 139·7 | 427 | 46 | 107·7 | 758 | 61 | 80·4 | 384 | 52 | 135·4 | 363 | 35 | 96·9 |
| June ...... | 297 | 24 | 80·8 | 39 | 13 | 333·3 | 678 | 123 | 181·4 | 470 | 95 | 202·1 | 525 | 55 | 104·7 | 382 | 62 | 162·3 | 494 | 40 | 80·9 |
| July ........ | 327 | 35 | 107·0 | 55 | 4 | 72·7 | 739 | 108 | 146·1 | 616 | 96 | 155·7 | 517 | 78 | 150·8 | 412 | 70 | 169·9 | 503 | 46 | 91·4 |
| August...... | 322 | 29 | 90·0 | 55 | 16 | 290·9 | 663 | 95 | 143·2 | 643 | 52 | 80·9 | 661 | 106 | 160·3 | 457 | 68 | 148·7 | 604 | 39 | 64·5 |
| September .. | 326 | 31 | 95·0 | 51 | 12 | 235·2 | 709 | 82 | 115·6 | 743 | 51 | 68·6 | 809 | 133 | 164·4 | 457 | 71 | 155·3 | 557 | 51 | 91·5 |
| October .... | 267 | 23 | 86·1 | 49 | 0 | 0 | 792 | 115 | 144·0 | 644 | 15 | 23·2 | 757 | 142 | 187·5 | 433 | 76 | 175·5 | 565 | 40 | 70·7 |
| November .. | 260 | 30 | 115·3 | 55 | 5 | 90·9 | 850 | 92 | 108·2 | 698 | 13 | 18·6 | 894 | 141 | 157·7 | 423 | 50 | 118·2 | 509 | 30 | 58·9 |
| December .. | 305 | 28 | 91·8 | 42 | 7 | 166·6 | 766 | 92 | 120·1 | 610 | 24 | 39·3 | 914 | 141 | 154·2 | 448 | 69 | 154·0 | 592 | 28 | 47·2 |
| Total.... | 3619 | 344 | 95·0 | 534 | 92 | 172·2 | 8202 | 916 | 111·6 | 8049 | 842 | 104·6 | 9213 | 1282 | 139·1 | 5036 | 784 | 155·6 | 5760 | 451 | 78·2 |

| Months. | Travancore. | | | Cannanore. | | | Calicut. | | | Bellary. | | | Cuddapah. | | | Kurnool. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. | Number vaccinated. | Failures. | Ratio per 1000 of failures. |
| January .... | 426 | 39 | 91·5 | 348 | 46 | 132·1 | 1279 | 265 | 207·1 | 284 | 49 | 172·5 | 632 | 53 | 85·8 | 75 | 24 | 320·0 |
| February .... | 193 | 22 | 113·9 | 346 | 40 | 115·6 | 1213 | 232 | 108·8 | 289 | 36 | 124·5 | 711 | 68 | 95·6 | 77 | 11 | 142·8 |
| March ...... | 286 | 50 | 174·8 | 307 | 33 | 107·4 | 1244 | 266 | 213·8 | 491 | 45 | 91·6 | 852 | 89 | 104·4 | 95 | 20 | 210·5 |
| April ...... | 308 | 56 | 181·4 | 319 | 28 | 87·7 | 1372 | 243 | 177·1 | 287 | 36 | 125·4 | 744 | 99 | 133·0 | 75 | 12 | 160·0 |
| May........ | 317 | 45 | 141·9 | 342 | 24 | 70·1 | 1241 | 291 | 234·4 | 273 | 36 | 131·8 | 879 | 90 | 102·3 | 81 | 25 | 308·6 |
| June ...... | 312 | 35 | 112·1 | 355 | 27 | 76·0 | 1355 | 281 | 207·3 | 245 | 42 | 171·4 | 987 | 100 | 101·3 | 81 | 12 | 148·1 |
| July ........ | 277 | 26 | 93·8 | 352 | 23 | 65·3 | 1259 | 300 | 238·2 | 331 | 44 | 132·9 | 974 | 99 | 101·6 | 83 | 13 | 156·6 |
| August...... | 0 | 0 | 0 | 363 | 26 | 71·6 | 1283 | 310 | 241·6 | 324 | 36 | 111·1 | 1103 | 114 | 103·3 | 82 | 4 | 48·7 |
| September .. | 0 | 0 | 0 | 353 | 29 | 82·1 | 1417 | 366 | 258·2 | 295 | 32 | 108·4 | 1022 | 105 | 102·7 | 107 | 14 | 130·8 |
| October .... | 0 | 0 | 0 | 356 | 28 | 78·6 | 1341 | 289 | 215·5 | 348 | 48 | 137·9 | 912 | 88 | 96·4 | 84 | 6 | 71·4 |
| November .. | 0 | 0 | 0 | 352 | 27 | 76·7 | 1368 | 330 | 241·2 | 275 | 40 | 145·4 | 948 | 94 | 99·1 | 92 | 11 | 119·5 |
| December .. | 0 | 0 | 0 | 351 | 33 | 94·0 | 1457 | 349 | 239·5 | 309 | 50 | 161·8 | 999 | 125 | 125·1 | 92 | 7 | 76·0 |
| Total.... | 2119 | 273 | 128·8 | 4144 | 364 | 87·8 | 15829 | 3522 | 222·5 | 3751 | 494 | 131·6 | 10763 | 1124 | 104·4 | 1024 | 159 | 155·2 |

No. 3.—Table *shewing the number vaccinated and of failures; also the ratio per* 1000 *monthly in Districts or Stations where vaccination has been most successful for the year* 1852.

| | Guntoor. | | | Nellore. | | | Vellore. | | | Verdachellum. | | | Vizagapatam. | | | Tranquebar. | | | Combaconum. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January .... | 391 | 0 | 0 | 1397 | 64 | 45·8 | 308 | 4 | 12·9 | 457 | 15 | 32·8 | 38 | 17 | 447·3 | 307 | 7 | 22·8 | 753 | 28 | 37·1 |
| February ... | 411 | 18 | 43·7 | 1462 | 64 | 43·7 | 308 | 8 | 25·9 | 372 | 10 | 26·8 | 335 | 36 | 107·4 | 330 | 5 | 15·1 | 818 | 34 | 41·5 |
| March ...... | 435 | 1 | 2·2 | 1567 | 87 | 55·5 | 356 | 16 | 44·9 | 371 | 14 | 37·7 | 524 | 33 | 62·9 | 329 | 6 | 18·2 | 851 | 20 | 23·5 |
| April ....... | 436 | 13 | 29·8 | 1295 | 90 | 69·4 | 375 | 17 | 45·3 | 401 | 23 | 57·3 | 264 | 8 | 30·3 | 331 | 7 | 21·1 | 784 | 29 | 36·9 |
| May........ | 436 | 1 | 2·2 | 1260 | 78 | 61·9 | 379 | 19 | 50·1 | 376 | 5 | 13·2 | 246 | 9 | 36·5 | 343 | 10 | 29·1 | 786 | 26 | 33·0 |
| June........ | 473 | 5 | 10·5 | 1231 | 51 | 41·4 | 362 | 14 | 38·6 | 391 | 6 | 15·3 | 269 | 5 | 18·5 | 332 | 2 | 6·0 | 793 | 32 | 40·3 |
| July ........ | 629 | 15 | 23·8 | 1463 | 84 | 57·4 | 373 | 12 | 32·1 | 401 | 5 | 12·4 | 555 | 9 | 16·2 | 332 | 1 | 3·0 | 982 | 38 | 38·6 |
| August...... | 585 | 9 | 15·3 | 1433 | 49 | 34·1 | 396 | 9 | 22·7 | 421 | 9 | 21·3 | 632 | 9 | 14·2 | 351 | 4 | 11·3 | 1146 | 50 | 43·6 |
| September ... | 522 | 17 | 32·5 | 1308 | 66 | 50·4 | 371 | 15 | 40·4 | 418 | 9 | 21·5 | 586 | 14 | 23·8 | 374 | 1 | 2·6 | 1158 | 44 | 37·9 |
| October ..... | 503 | 24 | 47·7 | 1253 | 41 | 33·5 | 355 | 12 | 33·8 | 370 | 10 | 27·0 | 601 | 12 | 19·9 | 425 | 5 | 11·7 | 1035 | 49 | 47·3 |
| November ... | 506 | 64 | 126·4 | 1316 | 73 | 55·4 | 372 | 13 | 34·9 | 341 | 11 | 32·2 | 600 | 29 | 48·3 | 384 | 8 | 20·8 | 994 | 49 | 49·2 |
| December ... | 498 | 42 | 84·3 | 1128 | 53 | 46·9 | 391 | 10 | 25·5 | 350 | 7 | 20·0 | 661 | 18 | 27·2 | 378 | 3 | 7·9 | 936 | 34 | 36·3 |
| Total.. | 5825 | 209 | 35·8 | 16113 | 800 | 49·6 | 4346 | 149 | 34·2 | 4669 | 124 | 26·5 | 5311 | 199 | 37·4 | 4216 | 59 | 13·9 | 11036 | 433 | 39·2 |

| | Madura. | | | Ramnad. | | | Coimbatore. | | | Honore. | | | Bangalore. | | | Mysore. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January .... | 508 | 15 | 29·5 | 461 | 14 | 30·3 | 613 | 27 | 44·0 | 547 | 75 | 137·1 | 361 | 8 | 22·1 | 3708 | 121 | 32·6 |
| February ... | 528 | 9 | 17·0 | 501 | 15 | 29·9 | 687 | 23 | 33·4 | 1060 | 50 | 47·1 | 341 | 8 | 23·4 | 3884 | 151 | 38·8 |
| March ...... | 575 | 13 | 22·6 | 483 | 17 | 35·1 | 561 | 19 | 33·8 | 1002 | 60 | 59·8 | 328 | 11 | 33·5 | 4001 | 155 | 38·7 |
| April ....... | 486 | 22 | 42·2 | 442 | 23 | 52·0 | 590 | 16 | 27·1 | 1043 | 38 | 36·4 | 320 | 14 | 43·7 | 4195 | 146 | 34·8 |
| May........ | 518 | 20 | 38·6 | 501 | 23 | 45·9 | 724 | 21 | 27·6 | 879 | 41 | 46·6 | 309 | 8 | 25·8 | 3992 | 140 | 35·0 |
| June........ | 633 | 17 | 26·8 | 511 | 19 | 37·1 | 639 | 25 | 39·2 | 896 | 42 | 46·8 | 303 | 8 | 26·4 | 3597 | 163 | 45·3 |
| July ........ | 607 | 19 | 31·3 | 498 | 22 | 44·1 | 644 | 27 | 41·9 | 1060 | 33 | 31·1 | 331 | 9 | 27·1 | 3876 | 194 | 50·0 |
| August...... | 678 | 28 | 41·2 | 490 | 12 | 24·4 | 674 | 19 | 28·1 | 1288 | 44 | 34·1 | 320 | 22 | 68·7 | 3781 | 184 | 48·6 |
| September ... | 704 | 21 | 29·8 | 522 | 12 | 22·9 | 794 | 27 | 34·0 | 1210 | 50 | 41·3 | 319 | 21 | 65·8 | 3645 | 174 | 47·7 |
| October ..... | 720 | 42 | 58·3 | 551 | 13 | 23·5 | 844 | 22 | 26·0 | 1325 | 30 | 22·6 | 311 | 18 | 57·8 | 3870 | 200 | 51·6 |
| November ... | 679 | 41 | 60·3 | 502 | 13 | 25·8 | 930 | 42 | 45·1 | 1024 | 39 | 28·0 | 304 | 12 | 39·4 | 3867 | 217 | 56·1 |
| December ... | 715 | 33 | 46·1 | 543 | 15 | 27·6 | 907 | 36 | 39·6 | 1206 | 40 | 33·1 | 308 | 19 | 61·6 | 3776 | 149 | 39·4 |
| Total.. | 7351 | 280 | 38·0 | 6005 | 198 | 32·9 | 8607 | 304 | 35·3 | 12540 | 542 | 43·2 | 3855 | 158 | 40·9 | 46192 | 1994 | 43·1 |

Fort St. George, Medical Board Office, 2d June 1853.

A. Lorimer, *Secretary Medical Board.*

1852. *General Return of Vaccination by Medical Subordinates.*

| Divisions. | Bazaars. | | Parcherry. | | Cantonments. | | Villages. | | Total. | | General Total Males & Females. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Males. | Females. | Males. | Females. | Males. | Females. | Males. | Females. | Males. | Females. | |
| Presidency.. .. .. .. .. | 5 | 3 | 45 | 46 | 33 | 18 | 52 | 42 | 135 | 109 | 244 |
| Centre.. .... .. .. .. | 327 | 180 | 161 | 104 | 314 | 123 | 315 | 198 | 1117 | 605 | 1722 |
| Northern.. .. .. .. .. | 83 | 68 | 89 | 76 | 149 | 82 | 353 | 211 | 674 | 437 | 1111 |
| Southern.. .. .. .. .. | 343 | 307 | 329 | 247 | 928 | 771 | 892 | 840 | 2492 | 2165 | 4657 |
| Malabar and Canara.. .. .. | 917 | 368 | 194 | 119 | 371 | 176 | 1557 | 690 | 3039 | 1353 | 4392 |
| Mysore .... .. .. .. .. | 118 | 35 | 93 | 48 | 29 | 18 | 62 | 36 | 302 | 137 | 439 |
| Ceded Districts.. .. .. .. | 55 | 33 | 26 | 26 | 120 | 58 | 473 | 323 | 674 | 440 | 1114 |
| Total.... | 1848 | 994 | 937 | 666 | 1944 | 1246 | 3704 | 2340 | 8433 | 5246 | 13679 |

*General Return of Vaccination by Volunteers.*

| Divisions. | Class and Sex of Persons vaccinated. | | | | | | | | General Total Males & Females. |
|---|---|---|---|---|---|---|---|---|---|
| | Christians. | | Hindoos. | | Mahomedans. | | Total. | | |
| | Males. | Females. | Males. | Females. | Males. | Females. | Males. | Females. | |
| Presidency .......... | 2 | 0 | 31 | 21 | 0 | 0 | 33 | 21 | 54 |
| Centre .............. | 47 | 49 | 2340 | 1296 | 177 | 155 | 2564 | 1500 | 4064 |
| Northern ............ | 21 | 22 | 4459 | 4083 | 20 | 15 | 4500 | 4120 | 8620 |
| Southern ............ | 484 | 403 | 3517 | 2830 | 238 | 128 | 4239 | 3361 | 7600 |
| Malabar and Canara ... | 59 | 38 | 248 | 117 | 112 | 48 | 419 | 203 | 622 |
| Mysore .............. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ceded Districts ....... | 122 | 95 | 10847 | 8129 | 1512 | 1078 | 12481 | 9302 | 21783 |
| Total.... | 735 | 607 | 21442 | 16476 | 2059 | 1424 | 24236 | 18507 | 42743 |

*Hyderabad Subsidiary Force—Abstract Return of Vaccination.*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Secunderabad and Jaulnah.. | 139 | 116 | 1150 | 844 | 487 | 234 | 1776 | 1194 | 2970 |

*Statement of the Expenditure of Rice at the Vaccine Depôt at Chintadrepettah during the year* 1852.

| Months. | Rice remaining on the 1st day of each Month. | | Since received from Commissary General. | | Total. | | Rice expended in the Depôt in each Month. | | Rice remaining at the end of each Month. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Marcalls. | Seers. | Marcalls. | Seers. | Marcalls. | Seers. | Marcalls. | Seers. | Marcalls. | Seers. |
| January.. .. .... | 54 | 4 | 200 | 0 | 254 | 4 | 91 | 7 | 162 | 9 |
| February .. .... | 162 | 9 | 0 | 0 | 162 | 9 | 92 | 10 | 69 | 11 |
| March.. .. .... | 69 | 11 | 48 | 2 | 118 | 1 | 118 | 1 | 0 | 0 |
| April.. .. .... | 0 | 0 | 112 | 0 | 112 | 0 | 112 | 0 | 0 | 0 |
| May.. .. .... | 0 | 0 | 112 | 6 | 112 | 6 | 112 | 6 | 0 | 0 |
| June.. .. .... | 0 | 0 | 108 | 10 | 108 | 10 | 108 | 10 | 0 | 0 |
| July.. .. .... | 0 | 0 | 119 | 7 | 119 | 7 | 119 | 7 | 0 | 0 |
| August.. .. .... | 0 | 0 | 123 | 6 | 123 | 6 | 123 | 6 | 0 | 0 |
| September .. .... | 0 | 0 | 116 | 0 | 116 | 0 | 116 | 0 | 0 | 0 |
| October.. .. .... | 0 | 0 | 103 | 8 | 103 | 8 | 103 | 8 | 0 | 0 |
| November .. .... | 0 | 0 | 144 | 8 | 144 | 8 | 144 | 8 | 0 | 0 |
| December .. .... | 0 | 0 | 136 | 6 | 136 | 6 | 136 | 6 | 0 | 0 |
| | 287 | 0 | 1325 | 5 | 1612 | 5 | 1379 | 9 | 232 | 8 |

Madras, 1st January, 1853.

Rob. Cole, *Garrison Surgeon and Supt. of Vaccination.*
Thomas Key, *Supg. Surgeon.*